Chapter 5. Timeliness

Key Findings:

- The mean time from arrival of a heart attack patient to initiation of a thrombolytic agent is 62.21 minutes. The median time is 43 minutes.
- The mean time in minutes from arrival to percutaneous transluminal coronary angioplasty (PTCA) for heart attack patients is 185.8 minutes. The median time is 108 minutes.
- About 64% of emergent or urgent visits to the emergency department in 2000 were seen in less than an hour.

Background and Impact

Timeliness refers to the ability of patients to receive appropriate medical care at the time it is needed. This encompasses two dimensions: the delivery of treatment for clinical conditions for which timing is critical; and patients' perceptions of their ability to schedule appointments and get care when they want it. This second dimension is an important but new area of study, and there is little consensus on its link to quality and how to measure and report data.

Timely delivery of appropriate care can be important for both acute and chronic conditions:[1,2,3]

- The ability of patients to obtain appropriate care for a specific problem once they have entered the health care system. This includes, for example, the ability to obtain emergency care and get appointments for routine care.[4]
- The ability of patients to receive timely care "within an episode of care and across multiple episodes of care for a single condition."[5] This involves timeliness in getting care once the patient is at the provider's site and time involved with a particular medical problem.[6]

Although problems with timeliness generally focus on the patient perspective, it is important to note as well that lack of timeliness also causes frustration and dangers for providers.

How the NHQR Measures Timeliness of Care

A variety of different indicators have been identified that might be used to measure timeliness in health care. This report presents data both on time-sensitive clinical procedures as well as patients' perceptions of the timeliness of their care. Information on the timeliness of two important clinical procedures for heart attack patients—thrombolysis and PTCA—are presented

in this section.[i] Information is also presented on the timeliness of care for emergent or urgent emergency department visits using data from the National Hospital Ambulatory Medical Care Survey (NHAMCS). Information on patients' perceptions of the timeliness of their care is presented using data from the Medical Expenditure Panel Survey.[ii]

How the Nation Is Doing[iii]

The results of the 2000 survey for the measures of timeliness selected for this report are presented below. The responses show some variation among different races and ethnic groups, as well as differences based on location, age, education, income level, and a number of other characteristics. Along with the results for the overall survey population,[iv] a few of the most significant differences among various ethnic and other groups are noted.

Clinical Timeliness for Heart Attack Patients

The mean time from arrival of a heart attack patient to initiation of a thrombolytic agent is 62.21 minutes. The median time is 43 minutes. This measure is assessed for patients with ST segment elevation or left bundle branch block (LBBB) on the electrocardiogram (ECG) performed closest to hospital arrival time.

The mean time in minutes from arrival to PTCA for heart attack patients is 185.84 minutes. The median time is 108 minutes. This is assessed in patients with ST segment elevation or left bundle branch block on the electrocardiogram performed closest to hospital arrival time.

Percent of Emergent/Urgent Emergency Department Visits With a Wait Time of an Hour or More

In about 64% of emergent or urgent visits to the emergency department in 2000, patients were seen in less than an hour. About 12% of emergent/urgent visits to the emergency department in 2000 resulted in a wait of at least an hour.[v] The most significant difference for this measure is between those who live in major metropolitan areas and those who do not. In metropolitan areas, 14% of emergency department patients had to wait an hour or more, compared with 7% of patients in nonmetropolitan areas.

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[i] These measures are listed in the Heart Disease section of this report, and the detailed tables for the measures are presented in the Heart Disease section of the Tables Appendix.

[ii] These MEPS measures are derived from Consumer Assessment of Health Plans (CAHPS®) questions. More information on the measures is presented in the Measure Specifications Appendix.

[iii] Adjusting for known contributing factors, such as gender, age, and insurance status (multivariate analysis), would allow for more detailed exploration of the data, but this generally was not feasible for this report. Any adjustments that were done are noted in the detailed tables. The data presented in this report do not imply causation.

[iv] The overall survey population includes those representative hospitals eligible for NHAMCS and MEPS* participants who are members of the health plans that volunteer to participate.

[v] Due to missing values, these numbers do not total 100%.

Patient Perceptions of the Timeliness of Their Care

- Percentage of people who reported that they could always get an appointment for routine care as soon as they wanted. This rate varied by age: 43% of adults, 52% of those under 18 years of age, and 55% of those aged 65 and over reported being always able to get an appointment for routine care as soon as they wanted.

- Percentage of people who reported that they could always get care for illness/injury as soon as they wanted. In a pattern similar to the above results, 54% of adults, 52% of those under 18 years of age, and 55% of those aged 65 and over reported always getting care for an illness or injury as soon as they wanted.

What We Don't Know

There is a growing body of evidence documenting the relationship between timeliness and quality. However, these are very disparate and don't represent a national view.

It is unclear what aspects of timeliness are most important in terms of ensuring positive health outcomes. For example, is access to care most critical overall, or is it important for certain conditions and under certain circumstances? Is timeliness in getting care once in the system an important determinant of how well chronic conditions are controlled? Is timeliness with respect to particular episodes of care a key factor in outcomes for acute conditions? Answers to such questions will help to determine which measures are the most critical to track.

Also unknown is to what extent new ways of responding to patients' needs can substantially reduce delays. For example, to what extent might the use of the Internet by patients speed up the delivery of quality health care?[7]

What Can Be Done

A range of promising approaches to improving the timeliness of health care are currently being pursued. In some cases, evidence suggests that delays can be reduced by applying lessons from other industries.[8] Greater use of information technology also holds considerable promise for improving timeliness. For example, both patients and health professionals could benefit from increased use of Internet-based communication to gain immediate access to automated clinical information, diagnostic tests, treatment results, and other important information. NAMCS and NHAMCS have begun to collect data on the number of visits by e-mail and telemedicine. Eventually "e-visits" and "telemedicine" might be able to significantly improve the timeliness with which at least certain aspects of health care are effectively provided.[9] In addition, the adoption of electronic medical records (EMRs), like those developed by the Veterans Health Administration, can greatly aid practitioners, researchers, and patients. For example, by providing such conveniences as automatic reminders to schedule patient tests and visits and comprehensive patient information at a glance, EMRs reduce the likelihood of missing important followup care, such as timely referrals to specialists. Additional potential benefits of EMRs

include reducing redundant information collection and facilitating smooth transitions among providers and systems.

List of Measures

Timeliness

Measure Title	*National*	*State*
Basic timeliness:		
% of people who report that they have a usual source of medical care, by place of care	Table 3.1a (00) Table 3.1b (00; hosp ed) Table 3.1c (00; poor h)	—
% of families that experience difficulties in obtaining care, by reason	Table 3.2 (00)	—
Getting appointments for care:		
% of people who report that they can get an appointment for routine care as soon as they want (always, usually, sometimes/never)	Table 3.3a (00; adult) Table 3.3b (00; child)	Table 3.3c Table 3.3d Table 3.3e Table 3.3f
% of people who report that they can get care for illness/injury as soon as they want (always, usually, sometimes/never)	Table 3.4a (00; adult) Table 3.4b (00; child)	Table 3.4c Table 3.4d Table 3.4e Table 3.4f
Waiting time:		
ED visits: Average time from arrival to being seen by a physician (separately for emergent, urgent, semi-urgent, and non-urgent visits)	Table 3.5a (9900;emerg) Table 3.5b (9899;emerg) Table 3.5c (9798;emerg) Table 3.5d (9900;semi) Table 3.5e (9899;semi) Table 3.5f (9798;semi)	—
ED visits: % of patients who left without being seen	Table 3.6a (9900) Table 3.6b (9899) Table 3.6c (9798)	—

Note: See Tables Appendix for tables listed above.

References

[1]Gurwitz JH, McLaughlin TJ, Willison DJ, et al. Delayed hospital presentation in patients who have had acute myocardial infarction. Ann Intern Med 1997;126(8):593-9.

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[3]Kinchen KS, Sadler J, Fink N, et al. The timing of specialist evaluation in chronic kidney disease and mortality. Ann Intern Med 2002;137(6):479-86.

[4]Institute of Medicine. Envisioning the National Health Care Quality Report. Washington, DC: National Academies Press; 2001. p. 53.

[5]Institute of Medicine. Envisioning the National Health Care Quality Report. Washington, DC: National Academies Press; 2001. p. 54.

[6]Institute of Medicine. Envisioning the National Health Care Quality Report. Washington, DC: National Academies Press; 2001. p. 55.

[7]Institute of Medicine. Crossing the quality chasm. Washington, DC: National Academies Press; 2001. p. 55. Available at: http://books.nap.edu/books/0309072808/html/. Accessed December 18, 2003.

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[9]Institute of Medicine. Crossing the quality chasm. Washington, DC: National Academies Press; 2001. p. 175. Available at: http://books.nap.edu/books/0309072808/html/. Accessed December 18, 2003.